



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,791	10/14/2003	Ki-Chul Kim	1315-047	2175

22429 7590 09/15/2005

LOWE HAUPTMAN GILMAN AND BERNER, LLP
1700 DIAGONAL ROAD
SUITE 300 /310
ALEXANDRIA, VA 22314

EXAMINER

THEISEN, DOUGLAS J

ART UNIT PAPER NUMBER

1724

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/683,791

Applicant(s)

KIM, KI-CHUL

Examiner

Douglas J. Theisen

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-4, drawn to a debubbling apparatus, classified in class 96, subclass 155.
 - II. Claims 5-6, drawn to a molding method, classified in class 264, subclass 102.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions to a debubbling apparatus and to a molding method are independent.

Inventions are independent if they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are independent because they have different effects or functions. The method is to molding a material. While the effect or function of the apparatus is to debubble a material.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, because of their recognized divergent subject matter, and because the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Examiner Matthew Daniels and Tracy Luke, acting on behalf of Allan Lowe, on 19 July 2005 a provisional election was made with traverse to prosecute the invention of I, claims 1-4. Affirmation of this election must be made by applicant in replying to this Office action. Claims 5-6 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent no.

1,184,259 to Price. Price describes a device for removing bubbles comprising a body plate having a plurality of perforated gas vent holes (stripper plate 9) and debubbling pipes (needles 6) having a cavity (duct 7) and debubbling holes (horizontal ducts 7 in Fig. 5) communicating with the cavity, the holes being at the side of the debubbling pipes, the debubbling pipes extending in such a manner that the cavity communicates with the vent holes of the body plate. The body plate has a handle (see Fig. 1) mounted on the backside thereof. See Figures 1, 2, 3, and 5 and page 1, line 43 to page 2, line 13.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent no.

6,315,815 to Spadaccini et al. Spadaccini describes a device for removing bubbles comprising a body plate (at the left end of shell 111 where tubes 113 are fixed) having a plurality of perforated gas vent holes and debubbling pipes having a cavity and debubbling holes communicating with the cavity (membrane tubes 113), the holes being at the side of the debubbling pipes, the debubbling pipes extending in such a manner that the cavity communicates with the vent holes of the body plate. See. Fig. 9 and column 6, line 66 to column7, line 23.

Claim Objections

8. Claims 1 and 2 are objected to because of the following informalities: Claims 1 and 2 and paragraphs 29 and 30 do not make clear the position of the debubbling pipes in relationship to the handle. The drawings clearly show that the debubbling pipes are located on one side of the body plate and that the handle is on the opposite side of the body plate from the debubbling pipes. It is suggested that the language of the claims and the specification be changed to indicate that the debubbling pipes and the handle are on opposite sides of the body plate.

Allowable Subject Matter

9. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: The reasons for the indication of allowable subject matter are that the closest prior art, U.S. patent no. 1,184,259 to Price, describes a device for removing bubbles comprising a body plate having a plurality of perforated gas vent holes (stripper plate 9) and debubbling pipes (needles 6) having a cavity (duct 7) and debubbling holes (horizontal ducts 7 in Fig. 5) communicating with the cavity, the holes being at the side of the debubbling pipes, the debubbling pipes extending in such a manner that the cavity communicates with the vent holes of the body plate. The body plate has a handle (see Fig. 1) mounted on the backside thereof. See Figures 1, 2, 3, and 5 and

Art Unit: 1724

page 1, line 43 to page 2, line 13. Price does not describe applicant's features that the debubbling pipes have varying lengths depending on the surface shape of a mold.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas J. Theisen whose telephone number is 571-272-1168. The examiner can normally be reached on Monday, Tuesday, and Wednesday 6:30 until 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

djt

DUANE SMITH
PRIMARY EXAMINER

13-12-05